

IN THE UNITED STATES
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PATENT APPLICATION

Dhritiman Banerjee
Giorgio Giaretta
Anthony L. Lentine

CASE 1-3-23-17

Serial No. 09/502882 Group Art Unit 2667

Filed February 11, 2000

Examiner T. Hoang

Title Propagation And Detection Of Faults In A Multiplexed Communication System

COMMISSIONER FOR PATENTS
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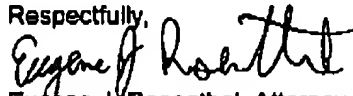
SIR:

Enclosed are the following documents:

1. Petition for Revival of an Application for Patent Abandoned Unintentionally Under 37 CFR 1.137(b) - \$1,500.00 fee under 37 CFR 1.17(m)
2. Amendment After Final Office Action

Please charge **Lucent Technologies Deposit Account No. 12-2325** in the amount of \$1,500.00 to cover the cost of this reply. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or credit **Lucent Technologies Deposit Account No. 12-2325** as required to correct the error.

Respectfully,

Eugene J. Rosenthal, Attorney
732-949-1857.

Reg. No. 36658

Date:

8/10/06

Docket Administrator (Room 3J-219)
Lucent Technologies Inc.
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

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SHARON LOBOSCO

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FAX COVER SHEET

RE: OFFICIAL PAPER
TO: Examiner Thai D. Hoang
U.S. Patent and Trademark Office
GAU: 2667
PHONE: 571-272-3184
FAX: 571-273-8300

FROM: Eugene J. Rosenthal
Reg. No. 36,658
Lucent Technologies Inc.
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DATE: August 10, 2006
Pages (incl. Cover): 22

Re: Petition For Revival of an Application for Patent Abandoned
Unintentionally Under 37 CFR 1.137(b) and Amendment After Final
Office Action
Case No.: Banerjee 1-3-23-17
Ser. No.: 09/502882
File Date: February 11, 2000
Title: Propagation And Detection of Faults In A Multiplexed
Communication System

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on the date indicated below:

August 10, 2006
Date


SHARON LOBOSCO

AUG 10 2006

Serial No.: 09/502,882

**IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE****Patent Application****Inventor(s):** Dhritiman Banerjee

Giorgio Giaretta

Anthony L. Lentine

Ted K. Woodward

Case: 1-3-23-17**Serial No.:** 09/502882**Group Art Unit:** 2667**Filed:** February 11, 2000**Examiner:** T. Hoang**Title:** Propagation And Detection Of Faults In A Multiplexed
Communication System**COMMISSIONER FOR PATENTS****P.O. Box 1450****Alexandria, VA 22313-1450****SIR:****PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED
UNINTENTIONALLY UNDER 37 C.F.R. 1.137(b)**

Applicants hereby petition for the revival of the application abandoned unintentionally under 37 C.F.R. 1.137(b) and in furtherance thereof submits as follows:

- 1) The required reply – See below.
- 2) The Petition fee - the Commissioner is authorized to charge the appropriate cost of such petition to the **Lucent Technologies Deposit Account No. 12-2325.**
- 3) The following statement under 37 C.F.R. 1.137(b)(3) – The entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 C.F.R. 1.137(b) was unintentional.

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An amendment after final rejection was timely filed on October 26, 2004 by Attorney of Record James Milton. No response was received from the United States Patent and Trademark Office. Unfortunately, Mr. Milton was separated from Lucent in a force reduction around June of 2005. His docket was transferred to another attorney and eventually to me in a bulk transfer, at some point around October 2005. At some point in 2006 Examiner Hoang called and suggested that certain minor amendments would secure allowance. After some negotiations, it was agreed to amend claims 1, 6, 7, 15, and 18, cancel claims 13, 14, 23, and 24, and that these changes would be implemented by Examiner amendment, thereby allowing the application to issue. Attached hereto are the handwritten notes of the undersigned outlining the agreed to changes and authorization therefore. Note that these notes are not dated because they were not originally conceived as becoming a permanent part of the record, but were merely intended to be used to confirm upon allowance that the expected Examiner's amendment correctly reflected the agreement. Unfortunately, shortly thereafter, the Examiner called again and notified the undersigned that the application was considered abandoned and that in order to continue prosecution a petition for revival would need to be applied for.

In furtherance of prosecution, applicant is attaching a modified version of the previously filed amendment that includes the changes that were to have been introduced by the agreed upon Examiner's amendment and adjusting the remarks minimally to reflect same. It appears to applicant that this corresponds to the required reply under 37 C.F.R. 1.137(b).

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In the event that an extension of time is further deemed to be required, although applicants do not believe one is required, such extension of time is hereby petitioned for, and the Commissioner is authorized to charge the appropriate cost of such petition to the **Lucent Technologies Deposit Account No. 12-2325**.

Respectfully,

By 
Eugene J. Rosenthal, Attorney
Reg. No. 36,658
732-949-1857

Lucent Technologies Inc.

Date: 8/10/06

Lucent Technologies
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I agreed to
Examiner amendment
as marked in pencil
on after final. Please copy
the marked version, then
make a clean version, and
put in folder in place of
marked up version.

Then I need an electronic version
of the spec, IPR of drug,
latest claims, before and after
Examiner amendment

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IN THE CLAIMS

1 1. (Previously presented) A data transmission system comprising:
2 a first plurality of Gigabit Ethernet input/output ports, each port being adapted to
3 be coupled to a first Gigabit Ethernet link carrying data packets;
4 a multiplexer interface coupled to said first input/output ports, said multiplexer
5 interface being adapted to receive said data packets;
6 a multiplexer coupled to said multiplexer interface, said multiplexer being
7 adapted to receive said data packets from said multiplexer interface and to multiplex
8 said data packets;
9 a transmitter coupled to said multiplexer; and
10 an optical link coupled to said transmitter, said transmitter being adapted to
11 transmit the multiplexed data packets over said optical link to a receiver;
12 wherein said multiplexer interface comprises a first optical transceiver adapted to
13 detect a first loss of signal in at least one of said first Gigabit Ethernet links; to generate
14 a signal loss code insert in response to detection of said first loss of signal; and to apply
15 said signal loss code insert to said multiplexer in place of said data packets from said at
16 least one of said first Gigabit Ethernet links having said first loss of signal.

1 2. (Previously presented) The system of claim 1, further comprising:
2 said receiver, which is coupled to said optical link and is adapted to receive said
3 multiplexed data packets from said optical link;
4 a demultiplexer coupled to said receiver, said demultiplexer being adapted to
5 demultiplex the received multiplexed data packets; and
6 a demultiplexer interface coupled to said demultiplexer, said demultiplexer
7 interface being adapted to receive the demultiplexed data packets,
8 wherein said demultiplexer interface comprises a plurality of second optical
9 transceivers that are each adapted to be coupled to a plurality of second Gigabit
10 Ethernet links;
11 and wherein said demultiplexer interface is adapted to prevent at least one of
12 said second optical transceivers from transmitting light in response to receipt of said
13 signal loss code insert within the demultiplexed data packets.

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1 3. (Original) The system of claim 2, further comprising a photo-
2 detector circuit coupled to said demultiplexer,
3 wherein said photo-detector circuit is adapted to detect a
4 second loss of signal in said optical link and in response,
5 generate a deactivate signal and transmit the deactivate signal
6 to said second optical transceivers.

1 4. (Previously presented) The system of claim 2, wherein each of said second optical
2 transceivers comprises a physical layer chip,
3 adapted to detect a third loss of signal in one of said second
4 Gigabit Ethernet links and go into an auto-negotiation stage.

1 5. (Original) The system of claim 1, wherein said signal loss code
2 insert is bit multiplexed with said data packets.

1 6. (Original) The system of claim 1, wherein said multiplexer¹⁵ [is]
2 [adapted to] multiplex on a bit by bit basis.

1 7. (Previously presented) A method of communicating the existence of
2 faults in a data transmission system, said method comprising:
3 receiving a plurality of data packets carried on a plurality of first Gigabit Ethernet
4 links at a first plurality of Gigabit Ethernet input/output ports;
5 multiplexing said data packets;
6 transmitting the multiplexed data packets to a receiver along at least a portion of
7 an optical link;
8 detecting a first loss of signal in at least one of said first Gigabit Ethernet links
9 and generating a signal loss code insert in response to detecting said first loss of signal;
10 and ^{using a signal loss code insert}
11 transmitting said signal loss code insert to said receiver in place of said data
12 packets from said at least one of said first Gigabit Ethernet links having said first loss of
13 signal.

1 8. (Previously presented) The method of claim 7, said optical link coupled to a

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2 demultiplexer, said demultiplexer comprising a plurality of second optical transceivers
3 that are each adapted to be coupled to a plurality of second Gigabit Ethernet links, said
4 method further comprising:
5 receiving said signal loss code insert; and
6 preventing at least one of said second optical transceivers from transmitting light in
7 response to said signal loss code insert.

1 9. (Original) The method of claim 7, wherein a photo-detector circuit
2 is coupled to said demultiplexer, said method further comprising
3 detecting a second loss of signal in said optical link;
4 generating a deactivate signal in response to said second loss of signal; and
5 transmitting the deactivate signal to said second optical transceivers.

1 10. (Previously presented) The method of claim 7, wherein each of said second optical
2 transceivers comprises a physical layer chip,
3 said method further comprising said physical layer chip
4 detecting a third loss of signal in one of said second
5 Gigabit Ethernet links; and
6 entering into an auto-negotiation stage.

1 11. (Previously presented) The method of claim 7, wherein said transmitting said signal
2 loss code insert to said receiver in place of said data packets comprises bit multiplexing
3 said signal loss code insert with said data packets.

1 12. (Previously presented) The method of claim 7, wherein the multiplexing is
2 accomplished on a bit by bit basis.

1 13. (Previously presented) A method of communicating the existence of a fault in an *channel*
2 optical link over which data was being transmitted from a transmitting node to a receiver
3 in a data transmission system, the method comprising transmitting a fault-identifying
4 signal to the receiver along at least a portion of said optical link in place of said data.

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1 14. (Previously presented) A system for communicating the existence of a fault in an *com.*
2 optical link over which data was being transmitted from a transmitting node to a
3 receiving node in a data transmission system, said system comprising:
4 means for detecting a loss of signal at an input/output port, and
5 means for transmitting a fault-identifying signal to the receiving node along at
6 least a portion of said optical link in place of said data.

1 15. (Previously presented) A multiplexer interface comprising:
2 a plurality of input ports, each input port being adapted to receive data from a
3 respective input link,
4 a plurality of output ports, the data received by each input port being applied to a
5 corresponding one of said output ports,
6 means for detecting a loss of signal at any one of said input ports,
7 means for generating a fault-identifying signal in response to detecting said loss
8 of signal, and *using a fault-identifying signal*
9 means for applying said fault-identifying signal to the output port corresponding
10 to one of said input ports having said loss of signal in place of said data.

1 16. (Previously presented) The multiplexer interface of claim 15, wherein said data are
2 carried in packets of variable length and wherein said data are encoded using a
3 predetermined code.

1 17. (Previously presented) The multiplexer interface of claim 15, wherein said fault
2 identifying signal is a signal that said predetermined code does not produce.

1 18. (Previously presented) A multiplexer interface, comprising:
2 at least one input port, said input port being adapted to receive data from a
3 respective input link,
4 at least one output port, the data received by said input port being applied to said
5 output port,
6 means for detecting a loss of signal at said input port,

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7 means for generating a fault-identifying signal in response to detecting said loss
8 of signal, and
9 means for applying said fault-identifying signal to said output port having said
10 loss of signal in place of said data.

1 19. (Previously presented) The multiplexer interface of claim 18, wherein said data are
2 carried in packets of variable length and wherein said data are encoded using a
3 predetermined code.

1 20. (Previously presented) The multiplexer interface of claim 19, wherein said fault
2 identifying signal is a signal that said predetermined code does not produce.

1 21. (Previously presented) The system of claim 1, wherein said signal loss code insert
2 is transmitted continuously by said transmitter as long as said first loss of signal is
3 detected.

1 22. (Previously presented) The method of claim 7, wherein said signal loss code insert
2 is transmitted continuously as long as said first loss of signal is detected.

1 23. (Previously presented) The method of claim 13, wherein said fault-identifying signal
2 is transmitted continuously to the receiver as long as said fault in said link is detected.

1 24. (Previously presented) The system of claim 14, wherein said fault-identifying signal
2 is transmitted continuously to the receiving node as long as said loss of signal is
3 detected.

1 25. (Previously presented) The multiplexer interface of claim 15, wherein said fault-
2 identifying signal is applied to said output port continuously as long as said loss of
3 signal is detected.

1 26. (Previously presented) The multiplexer interface of claim 18, wherein said fault-
2 identifying signal is applied to said output port continuously as long as said loss of
3 signal is detected.